

ABSTRACT

A method for the production of glass suitable for use in an optical fiber, by (1) dissolving an optically active component in a solvent to form a solution; (2) mixing the solution and a powder substrate, wherein the powder substrate is insoluble in the solvent; and (3) melting the solution and powder substrate to form glass at a temperature or temperature range that causes melt viscosities at less than or equal to 100,000 poise. A glass made by such a method and an optical fiber comprising such a glass. An optical fiber having optically active ions having an unbleachable loss of 1% or less of the peak of absorption. Also, a method for the production of composition suitable for melting into a glass suitable for use in an optical fiber, by (1) dissolving an optically active component in a solvent to form a solution, wherein the optically active component is soluble in the solvent; and (2) mixing the solution and a powder substrate, wherein the powder substrate is insoluble in the solvent, and a composition made by such a method.